

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An isolated human antibody[[,]] or antigen-binding fragment thereof[[,]] that specifically binds to human T cell, immunoglobulin domain and mucin domain 1 (TIM-1), wherein said antibody or antigen-binding fragment thereof specifically binds an epitope on TIM-1 comprising the amino acid sequence PMPLPRQNHEPVAT (SEQ ID NO: 87).
2. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said TIM-1 comprises the amino acid sequence shown in SEQ ID NO:54 wherein said antibody or antigen-binding fragment thereof comprises a heavy chain amino acid sequence comprising three complementarity determining regions (CDRs) and a light chain amino acid sequence comprising three CDRs, where the three heavy chain CDRs and the three light chain CDRS are selected from:
 - (a) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFIFSRYG MH (SEQ ID NO: 156), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKLYADSVKG (SEQ ID NO: 157), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSRSLDSDDGNTYLD (SEQ ID NO: 159), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence TLSYRAS (SEQ ID NO: 160), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
 - (b) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFTNYGLH (SEQ ID NO: 138), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence

VIWYDGSHKIFYADSVKG (SEQ ID NO: 139), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DLDY (SEQ ID NO: 140), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSVSNYYLA (SEQ ID NO: 141), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence GASSRAT (SEQ ID NO: 142), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence QQYGSSLPLT (SEQ ID NO: 143);

- (c) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMV (SEQ ID NO: 144), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKYYADSVKG (SEQ ID NO: 145), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DFYDSSRYHYGMDV (SEQ ID NO: 146), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLLDSDDGNTYLD (SEQ ID NO: 147), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence TVSYRAS (SEQ ID NO: 148), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRIEFPIT (SEQ ID NO: 149);
- (d) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GGSISSDGYYS (SEQ ID NO: 150), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence YIYYSGSTFYNPSTLKS (SEQ ID NO: 151), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence ESPHSSNWYSGFDC (SEQ ID NO: 152), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSIGSRLH (SEQ ID NO: 153), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence YASQSFS (SEQ ID NO: 154), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence HQSSNLPFT (SEQ ID NO: 155);

- (e) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSRYGMH (SEQ ID NO: 162), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKLYADSVKG (SEQ ID NO: 157), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQSIYSYLN (SEQ ID NO: 163), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence QQSYSTPPT (SEQ ID NO: 165);
- (f) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFRSYGMH (SEQ ID NO: 166), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKYYTDSVKG (SEQ ID NO: 167), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQGIRNDLA (SEQ ID NO: 168), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence LQHNSYPPS (SEQ ID NO: 169);
- (g) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMH (SEQ ID NO: 170), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence VIWYDGSCHKYYADSVKG (SEQ ID NO: 171), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYYDTSRHHWGFDY (SEQ ID NO: 172), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLLDSEDGNTYLD (SEQ ID NO: 173), a sequence that is at least 90%

- identical to a light chain CDR2 comprising the amino acid sequence TLSHRAS (SEQ ID NO: 174), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
- (h) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence RIKRRTDGGTTDYAAPVKG (SEQ ID NO: 176), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence VDNDVDY (SEQ ID NO: 177), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLHNSNGYNYLD (SEQ ID NO: 178), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQALQTPLT (SEQ ID NO: 180);
- (i) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GGSVSSGGYYWS (SEQ ID NO: 181), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence FIYYTGSTNYPNPSLKS (SEQ ID NO: 182), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DYDWSFHFDY (SEQ ID NO: 183), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RASQGIRNDLG (SEQ ID NO: 184), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence LQHNSYPLT (SEQ ID NO: 185);
- (j) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence RIKRKTDGGTTDYAAPVKG (SEQ ID NO: 186), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence VDNSGDY (SEQ ID NO: 187), a sequence that is at least 90% identical to a light

- chain CDR1 comprising the amino acid sequence RSSQSLHLSNGYNYLD (SEQ ID NO: 178), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQALQTPLT (SEQ ID NO: 180);
- (k) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFTNYWMS (SEQ ID NO: 188), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence NIQQDGSEKYYVDSVRG (SEQ ID NO: 189), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence WDY (SEQ ID NO: 190), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLVHSDGNTYLN (SEQ ID NO: 191), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence MISNRFS (SEQ ID NO: 192), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQATESPQT (SEQ ID NO: 193); and
- (l) a sequence that is at least 90% identical to a heavy chain CDR1 comprising the amino acid sequence GFTFSTYSMN (SEQ ID NO: 194), a sequence that is at least 90% identical to a heavy chain CDR2 comprising the amino acid sequence YIRSSTSTIYYAESLKG (SEQ ID NO: 195), a sequence that is at least 90% identical to a heavy chain CDR3 comprising the amino acid sequence DFDY (SEQ ID NO: 196), a sequence that is at least 90% identical to a light chain CDR1 comprising the amino acid sequence RSSQSLVHSDGNTYLN (SEQ ID NO: 197), a sequence that is at least 90% identical to a light chain CDR2 comprising the amino acid sequence KISTRFS (SEQ ID NO: 198), and a sequence that is at least 90% identical to a light chain CDR3 comprising the amino acid sequence MQTTQIPQIT (SEQ ID NO: 199).

3. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antibody is a monoclonal antibody.
4. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antigen-binding fragment comprises a Fab, Fab', F(ab')₂, or Fv fragment of said antibody.
5. (Currently Amended) The antibody or antigen-binding fragment of claim 1, wherein said antibody is a single chain antibody.
6. (Currently Amended) The antibody[[,]] or antigen-binding fragment[[,]] of claim 1, wherein said antibody or antigen-binding fragment is associated with a pharmaceutically acceptable carrier or diluent.
7. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment is conjugated to a therapeutic agent.
8. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 7, wherein the therapeutic agent is a toxin.
9. (Currently Amended) The antibody[[,]] or antigen-binding fragment of claim 7, wherein the therapeutic agent is a radioactive isotope.
10. (Currently Amended) The antibody or antigen-binding fragment of claim 7, wherein the therapeutic agent is a chemotherapeutic agent.

11. (Currently Amended) A human antibody[[,]] or antigen-binding fragment thereof[[,]] that competes for binding with ~~an~~ a human antibody that binds to human TIM-1 and comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:

- (a) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;
- (b) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;
- (c) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;
- (d) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;
- (e) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 20;
- (f) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 38, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 40;
- (g) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 30, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 32;
- (h) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 10, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 12;

- (i) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 2, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 4;
 - (j) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 22, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 24;
 - (k) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 6, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 8;
 - (l) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 14, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 16; and
 - (m) a sequence that is at least 90% identical to the heavy chain amino acid sequence of SEQ ID NO: 50, and a sequence that is at least 90% identical to the light chain amino acid sequence of SEQ ID NO: 52.
12. (Currently Amended) A hybridoma cell line producing the antibody[[,]] or antigen-binding fragment[[,]] of claim 1.
13. (Withdrawn) A transformed cell comprising a gene encoding the antibody, or binding fragment, of claim 1.
14. (Withdrawn) The transformed cell of claim 13, wherein the cell is a Chinese hamster ovary (CHO) cell.
15. (Withdrawn) A method of inhibiting cell proliferation associated with the expression of TIM-1, comprising treating cells expressing TIM-1 with an effective amount of a human antibody, or binding fragment thereof, that specifically binds to T cell, immunoglobulin domain and mucin domain 1 (TIM-1).

16. (Withdrawn) The method of claim 15, wherein the method is performed in vivo.
17. (Withdrawn) The method claim 16, wherein the method is performed on a mammal.
18. (Withdrawn) The method of claim 17, wherein the mammal is a human.
19. (Withdrawn) The method of claim 17, wherein the mammal suffers from a cancer involving epithelial cell proliferation.
20. (Withdrawn) The method of claim 19, wherein the cancer comprises a lung, colon, gastric, kidney, renal, prostate or ovarian carcinoma.
21. (Withdrawn) A method of effectively treating renal cancer comprising: identifying an animal in need of treatment for renal cancer; administering to said animal a therapeutically effective dose of the antibody of claim 1.
22. (Withdrawn) A method of effectively treating ovarian cancer comprising: identifying an animal in need of treatment for ovarian cancer; administering to said animal a therapeutically effective dose of the antibody of claim 1.
23. (Currently Amended) An article of manufacture comprising a container, a composition contained therein, and a package insert or label indicating that the composition can be used to treat cancer characterized by the overexpression of TIM-1, wherein the composition comprises the antibody[[,]] or antigen-binding fragment[[,]] of claim 1.
24. (Original) The article of manufacture of claim 23, wherein the cancer is a lung, colon, gastric, kidney, renal, prostate or ovarian carcinoma.

25. (Currently Amended) An assay kit for the detection of TIM-1 in mammalian tissues or cells in order to screen for lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the TIM-1 being an antigen expressed by lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the kit comprising ~~[[an]]~~ the anti-TIM-1 antibody or antigen-binding fragment thereof of claim 1 ~~that binds the antigen protein~~ and means for indicating the reaction of the antibody with the antigen, if present.

26. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is a monoclonal antibody.

27. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof ~~that binds the antigen~~ is labeled.

28. (Currently Amended) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is an unlabeled first antibody or antigen-binding fragment thereof and the means for indicating the reaction comprises a labeled second antibody that is anti-immunoglobulin.

29. (Currently Amended) The assay kit of claim 27, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof ~~that binds the antigen~~ is labeled with a marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.

30. (Original) The assay kit of claim 28, wherein the second antibody is labeled with a marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.

31. - 32. (Cancelled)

33. (Currently Amended) The isolated human antibody or antigen-binding fragment of claim 32 ~~claim 2~~, wherein said antibody binds to human TIM-1 with a K_d between 10⁻⁷ and 10⁻⁴ M.

34. (New) The isolated antibody or antigen-binding fragment of claim 1, wherein said antibody or antigen-binding fragment comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:

- (a) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;
- (b) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;
- (c) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;
- (d) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;
- (e) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 20;
- (f) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 38, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 40;
- (g) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 30, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 32;
- (h) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 10, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 12;
- (i) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 2, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 4;

- (j) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 22, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 24;
- (k) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 6, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 8;
- (l) a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 14, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 16; and
- (m) a sequence that is at least 90% identical to the heavy chain amino acid sequence of SEQ ID NO: 50, and a sequence that is at least 90% identical to the light chain amino acid sequence of SEQ ID NO: 52.